

WHAT IS CLAIMED IS:

1. An apparatus for calculating an initial correction coefficient, the apparatus being arranged to calculate initial correction  
5 coefficients for correcting rotational angular velocities obtained from outputs of rotational angular velocity detecting means which are respectively provided in connection with four tires mounted to a vehicle and comprising:

a judged value calculating means which calculates a judged  
10 value on the basis of the rotational angular velocities whether an air-pressure of a tire has decreased;

an identifying means which identifies, on the basis of the judged value, whether the vehicle is performing turning movements at high velocity, straight-ahead running or turning movements at mid/low  
15 velocity; and

an initial correction coefficient calculating means which obtains an initial correction coefficient for eliminating a difference between effective rolling radii owing to initial differences between respective tires from the rotational angular velocities, when it has been  
20 identified by the identifying means that the vehicle is performing straight-ahead running or turning movements at mid/low velocity, wherein the identifying means includes a limit processing means which judges whether a difference or a ratio between the calculated judged value and a previously obtained reference judged value is less than a  
25 preliminarily obtained threshold or not, and a running determining means which determines, when it is determined that the value of the difference or the ratio is less than the threshold, that the vehicle is

performing straight-ahead running or turning movements at mid/low velocity.

2. The apparatus of Claim 1, wherein the apparatus further  
5 includes a reference judging means in which a judged value obtained by performing averaging processes on the basis of the judged value and a previously obtained judged value is used as the reference judged value employed in the identifying means.

10 3. The apparatus of Claim 2, wherein the apparatus further includes a judged value replacing means which regards a reference value obtained by performing averaging processes on the basis of the judged value and a previously obtained judged value as an initial reference judged value, prior to performing identifying processes in the identifying  
15 means; a first storing means which stores the number of times of calculation of the initial reference judged values; a number judging means which judges whether the number of times of calculation is less than a preliminary set threshold; an execution prohibiting means which performs only processes for obtaining the initial reference judged value  
20 but prohibits execution of identifying processes by the identifying means when it is determined that the number of times of calculation is less than the threshold; and a setting means which sets the initial reference judged value as a reference judged value which is first used in the identifying means.

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4. The apparatus of Claim 3, wherein the identifying means includes a second storing means which stores a number of times of

identification in which it is identified that the vehicle is performing turning movements at high velocity, an identification number judging means which judges whether the number of times of identification is not less than a preliminary determined threshold or not, and an  
5 initialization executing means which initializes the initial correction coefficient when it is determined that the number of times of identification is not less than the threshold.

5. A method for calculating an initial correction coefficient in  
10 which initial correction coefficients for correcting rotational angular velocities obtained from outputs of rotational angular velocity detecting means which are respectively provided in connection with four tires mounted to a vehicle are calculated, the method comprising the steps of:  
calculating a judged value on the basis of the rotational  
15 angular velocities whether an air-pressure of a tire has decreased;  
identifying, on the basis of the judged value, whether the vehicle is performing turning movements at high velocity, straight-ahead running or turning movements at mid/low velocity; and  
obtaining an initial correction coefficient for eliminating a  
20 difference between effective rolling radii owing to initial differences between respective tires from the rotational angular velocities, when it has been identified by the identifying means that the vehicle is performing straight-ahead running or turning movements at mid/low velocity,  
25 wherein the identifying step includes the steps of judging whether a difference or a ratio between the calculated judged value and a previously obtained reference judged value is less than a preliminarily

obtained threshold or not, and of determining, when it is determined that the value of the difference or the ratio is less than the threshold, that the vehicle is performing straight-ahead running or turning movements at mid/low velocity.

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6. A program for calculating an initial correction coefficient, wherein for calculating initial correction coefficients for correcting rotational angular velocities obtained from outputs of rotational angular velocity detecting means which are respectively provided in connection  
10 with four tires mounted to a vehicle, a computer is made to function as a judged value calculating means which calculates a judged value on the basis of the rotational angular velocities whether an air-pressure of a tire has decreased, an identifying means which identifies, on the basis of the judged value, whether the vehicle is performing turning movements at  
15 high velocity, straight-ahead running or turning movements at mid/low velocity, and an initial correction coefficient calculating means which obtains an initial correction coefficient for eliminating a difference between effective rolling radii owing to initial differences between respective tires from the rotational angular velocities, when it has been  
20 identified by the identifying means that the vehicle is performing straight-ahead running or turning movements at mid/low velocity, and further as a limit processing means which judges whether a difference or a ratio between the calculated judged value and a previously obtained reference judged value is less than a preliminarily obtained threshold or  
25 not, and a running determining means which determines, when it is determined that the value of the difference or the ratio is less than the threshold, that the vehicle is performing straight-ahead running or

turning movements at mid/low velocity.